

New Microcomputer Products From MSI

COMPUTERLAND OF ARLINGTON HEIGHTS

50 East Rand Road

Arlington Heights, Ill. 60004

(312) 255-6488

The MSI System 12 Computer System

GENERAL DESCRIPTION

The MSI System 12 combines the popular MSI-6800 Processor, complete with 32K of memory, the FD-8 QUAD Floppy Disk System, and the new HD-8/R 10 Megabyte Fixed/Removable Disk System in one compact desk unit. The System 12 is ideal for business applications where large capacity disk storage is required while retaining the flexibility of the floppy disk system for program loading, backup, software updates and exchanges. The System 12 employs the new SDOS Operating System which integrates both disk systems together to provide one of the most powerful small computer systems available anywhere.

SPECIFICATIONS

The System 12 is available with various configurations of disk system capability including the FD-8A, FD-8 QUAD, and the HD-8/R. Rack mounting options are now available for the MSI-6800 Computer System which allows almost any combination of MSI Computer Products to be mounted in our desk module.

Physical Parameters:

Height - 29 inches

Width - 48 inches

Depth - 35 inches

Weight - 250 pounds (approx. equipped as shown)



The New MSI SDOS Operating System

DESCRIPTION

The new SDOS Operating System is perhaps the most powerful system available for any microcomputer system.

SDOS provides a linked file structure which means that a disk never has to be packed when files are purged. Catalog entries are stored on the disk using a hashing technique which permits fast retrieval even when the disk is full. Many utility programs for file maintenance are included.

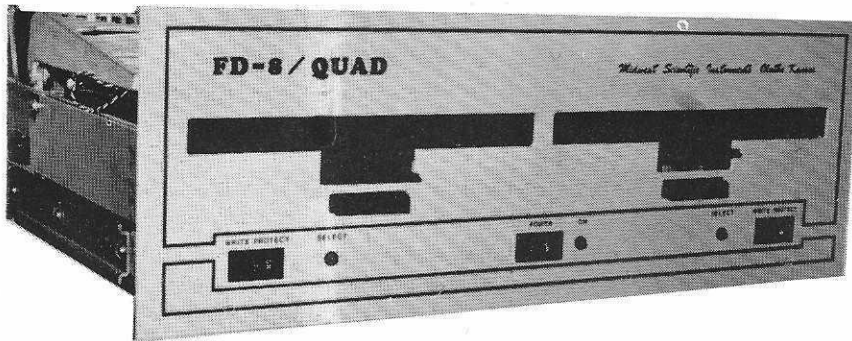
SYSTEM CONFIGURATIONS

SDOS will operate on the MSI-6800 Computer System equipped with 32K of memory and any FD-8 or HD-8/R disk system. SDOS contains disk I/O routines for all MSI disk products permitting the use of any combination of disk equipment.

The Model FD-8Q Quad Density Floppy Disk Memory System

GENERAL DESCRIPTION

The FD-8 Quad Density System employs double sided disk drives as well as the double density recording technique. The FD-8Q is offered in dual drive configuration only which provides a total storage capacity of over 2.4 megabytes.



INTERFACE REQUIREMENTS

The double sided disk drives reside in a 19 inch rack mounted chassis with complete power supply. The disk controller board resides on the main memory bus of the MSI-6800 Computer System where it occupies a block of 16 memory addresses, \$F410-\$F41F, for disk control and data transfer. The new MSI disk controller, providing a much increased data transfer rate, is employed.

SPECIFICATIONS

Media:	Number of Tracks per Surface	77
	Number of Surfaces	2
	Sectors per Track	32
	Data Bytes per Sector	256
	Data Bytes per Disk	1,261,568

Access Time:

Rotational Speed	365 RPM
Average Latency	83 ms
Head positioning	6 ms Track to Track
Head Loading Time	40 ms

Recording Technology: Double Frequency

Bit Transfer rate (Controller-Disk)	480 KBS
Bit Transfer rate (CPU-Controller)	625 KBS

Physical Parameters:

Height - 7 inches
Width - 19 inches
Depth - 28 inches
Weight - 35 pounds (approx.)

Model FD-8A Floppy Disk Memory System

GENERAL DESCRIPTION

The Model FD-8A Floppy Disk Memory System is an improved version of the popular FD-8 System. The FD-8A features a 10 fold increase in data transfer rate by implementation of a byte parallel transfer method. The FD-8A also features double density recording technology in order to achieve 600K bytes of storage capacity per diskette surface.

INTERFACE REQUIREMENTS

The FD-8A consists of the drive unit, which is housed in a cabinet with its own power supply, and a separate controller board which resides on the main memory bus of the MSI-6800 Computer System. The controller occupies a block of 16 memory addresses, \$F410-\$F41F, for disk control and data transfer. The FD-8A controller board can be used to upgrade existing FD-8 Systems.

SPECIFICATIONS

Media:	Number of Tracks	77
	Sectors per Track	32
	Data Bytes per Sector	256
	Data Bytes per Disk	630,784

Recording Technology: Double Frequency

Bit Transfer Rate (Controller-Disk) -	480 KBS
Bit Transfer Rate (CPU-Controller) -	625 KBS

Access Time:

Rotational Speed	365 RPM
Average Latency	83 ms
Head Positioning	6 ms track to track
Head Loading Time	40 ms

Physical Parameters:

Height - 7 inches
Width - 12 inches
Depth - 20.5 inches
Weight - 20 pounds (approx.)

MSI Model HD-8R Fixed/Removable Disk Memory System

GENERAL DESCRIPTION

The MSI Model HD-8/R Disk Memory System employs a 200 track per inch fixed/removable disk drive which provides 10 megabytes of formatted data storage. The drive unit contains one fixed disk having a capacity of 5 megabytes. A second 5 megabyte removable disk cartridge can be quickly inserted or removed from the front loading drive in order to achieve convenient backup capability. A braking mechanism on the drive motor allows rotation to be stopped quickly and permits the rapid exchange of disk cartridges within a few seconds.

SPECIFICATIONS

Media:	Scotch 922-24, EMM-CAELUS CMIII-2X or equivalent
Tracks per inch	200
Track to Track Spacing	.005
Tracks per Surface	408
Number of Surfaces	4(2 fixed-2 removable)
Sectors per Track	24
Usable Data Bytes per Sector	256

Recording Technology:	Double Frequency
Bit Density	2200 BPI Max. (inside track)
Bit Transfer Rate (Controller-Disk)	2400 KBS
Bit Transfer Rate (CPU-Controller)	625 KBS
Usable Data Bytes per Drive -	10,027,008

Access Time:	
Rotational Speed	2400 RPM
Average Latency -	12.5 ms
Head Positioning -	12 ms Track to Track Maximum

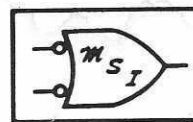
INTERFACE REQUIREMENTS

The HD-8/R System consists of the drive unit and a separate disk controller board which resides on the main memory bus of the MSI-6800 Computer System. The controller utilizes a block of 16 memory addresses, \$F400 - \$F40F, for disk control and data transfer.

Physical Parameters:

Height -	8.75 inches
Width -	17.75 inches
Depth -	28 inches (RACK) 30.05 inches overall
Weight -	91 pounds

(The drive unit is designed for mounting in a standard 19 rack.)



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8000 Munchen 81
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1060 Brussels, Belgium
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Rockville, MD 20852

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Gallion Data Systems
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Kansas City, MO 64108

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Compact Computers
113 Hamilton
Butte, MT 59701

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Computer Mart of New York
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New York, NY 10006

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1020 W. Wilshire Blvd.
Oklahoma City, OK 73116

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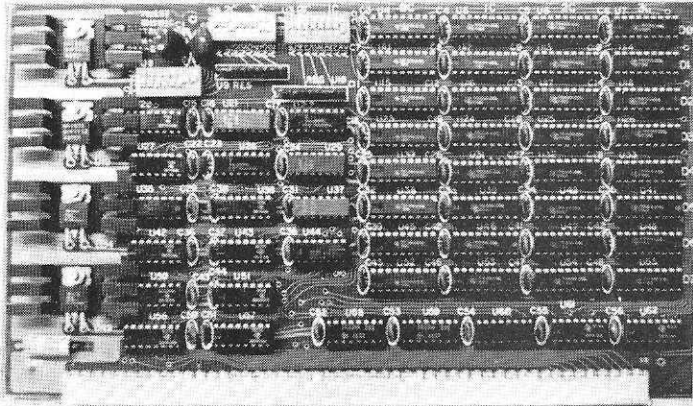
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The Model RAM-16, 16K Memory Board



GENERAL DESCRIPTION

The MSI Model RAM-16 is a 16K static RAM board which is compatible with the SS-50 Bus architecture of the MSI-6800 and other computer systems. The board employs 32 4K static RAM chips to provide a total of 16,384 bytes of storage on each memory board. The RAM-16 requires only a 5 volt power supply for operation, and is certified for 2 MHz operation.

The memory board has many special features, including software enable/disable, write protect, base address selection, and other features all of which are available under software control. These are described in detail below.

SPECIAL FEATURES

The RAM-16 memory board is organized into four columns of 4K each. The base address of each of the four columns is switch selectable and may be placed at any 4K increment of memory. This means, for example, that the bottom 12K of a given memory board might be placed at starting location 0 while the top 4K of that particular memory board may be located at \$C000 or any other desired address.

CONTROL REGISTERS

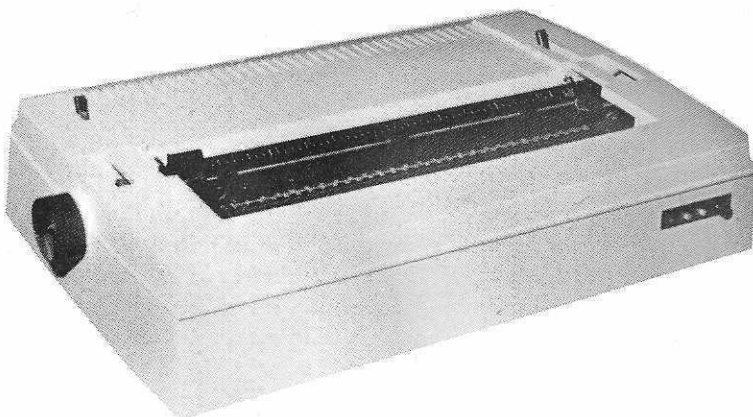
Each memory board contains an 8 bit control register. The address of the control register is switch selectable from \$F4F8 thru \$F4FF. This allows a maximum of 8 RAM-16 memory boards to be contained within a given system. Each memory board, contained within a system must be strapped at a different control address location.

The control register determines whether or not the special features of the board are active or inactive. It is possible to disable the special feature selection and thereby cause the memory board to appear as a completely standard memory board. If the control register is activated, then two bits (7 and 6) control the base address location for the entire board in 16K increments. Bits 5 and 4 control the enable of each half of the 16K board. Bit 4 controls the bottom 8K of the board and bit 5 controls the upper 8K of the board. Writing a zero into both of these locations causes the memory board to be completely disabled and removed from the system data bus. Bits 3, 2, 1, and 0 control the write protection of each 4K memory column on the board.

SUMMARY

The special features of the RAM-16 memory board make it one of the most flexible and versatile memory boards available anywhere. The memory chips used in the board are certified for operation at 2 Mhz with no difficulty. This product offers one of the best buys in computer memory available anywhere.

MSI Model SP-3 Printer



GENERAL DESCRIPTION

The Model SP-3 High Speed Character Printer is a high performance, high quality unit which is ideal for use in business systems. The SP-3 utilizes a daisy wheel impact mechanism to produce a very high print quality which is acceptable for letter writing and text processing applications.

PLOTTING CAPABILITY

The carriage of the SP-3 can be moved in increments of 1/120th of an inch and the platen in increments of 1/48th of an inch under software control. This permits high resolution plotting routines to be used for the generation of high quality graphs and plots which are suitable for publication.

SOFTWARE HANDLER ROUTINES

A software handler is provided with the SP-3 which allows complete bi-directional printing and plotting capability when used with the MSI-6800 System. The handler can easily be added to MSI BASIC to permit printing and plotting routines in BASIC programs.

SPECIFICATIONS

PRINT

Full upper/lower case ASCII with office typewriter quality

PRINTING SPEED PRINT WHEEL FORMS

45 characters per second
Operator changeable plastic daisy wheel
Continuous (with sprocket feed) or single sheet 15 inches max width 6 copies max.
Re-usable fabric or single strike carbon in plastic cartridge

RIBBON

FORMAT

Horizontal, 132 columns at 10 characters per inch

PLOTTING INTERFACE

Resolution of 5760 points per square inch
MSI SP-3 interface board which resides on interface bus of the MSI-6800 System

PHYSICAL

Width - 22.5 inches
Depth - 13.5 inches
Height - 7.0 inches
Weight - 26.0 pounds

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